

**REMARKS**

Claims 1-16 are pending in the present application. By the present amendment claim 4 has been canceled and the subject matter of claim 4 incorporated into claim 1.

No new matter has been added.

**Rejections under 35 U.S.C. §112**

The Examiner rejected claim 5 under 35 U.S.C. §112, First paragraph, because the claims recite terms, "screw holding strength", and "split resistance", which are not sufficiently described in the specification.

Through several previous office actions, the Examiner has not objected to the use of either of these terms. Indeed, in previous office actions, rather than object to these terms as insufficiently described in the specification, the Examiner asserted that the values for "screw holding strength" and "split resistance" recited in the present claims were disclosed by U.S. Patent Application 2003/0008110 A1 to Hsu ("Hsu") (Office Action of March 19, 2003, Page 5). The Examiner no longer makes this claim with regard to the teachings of Hsu, but now argues instead that "screw holding strength" and "split resistance" are not sufficiently defined.

Applicants disagree with the Examiner's assertion. The terms "screw holding strength", and "split resistance" are defined in detail in National Wood Windows and Door Association ("NWWDA") standard TM-10 (cited by Applicants at paragraph 0051), and National Wood Windows and Door Association ("NWWDA") standard TM-5-1990 (cited by Applicants at paragraph 0048), respectively. Both of these references are explicitly incorporated

by reference at paragraph 0020. Such incorporation is a common and well-accepted practice in constructing a patent specification:

an application may attempt to incorporate the content of another document or part thereof by reference to the document in the text of the specification. The information incorporated is as much a part of the application as filed as if the text was repeated in the application, and should be treated as part of the text of the application as filed. M.P.E.P. §2163.07(b).

The Examiner rejected claim 2 under 35 U.S.C. §112, Second paragraph, because of the presence of a clause in the middle of claim 2 beginning with “preferably...” that recites a narrow thickness range included within a broader range. By the present amendment, Applicants have deleted this clause and the narrower range from claim 2. The Examiner also rejected claim 6 under 35 U.S.C. §112, Second paragraph because of recitation of the  $\text{lbs/ft}^2$  units when unit volume was clearly required. Applicants have corrected claim 6 accordingly.

### **The Present Invention**

The present application relates to a laminated wood piece, a door including the laminated wood piece in the form of a stile member, and methods for manufacturing a door including the laminated wood piece as a door stile. The laminated wood piece comprises a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and a wood composite component having layers oriented substantially parallel to the lower surface of the solid hardwood component. The ratio of a thickness of the solid hardwood component to a thickness of the wood composite component is from about 1:1 to about 1:10.

As mentioned above, the laminated wood piece may be installed as a stile in a composite door so that the wood composite component faces inwardly towards the center of the door, and the solid hardwood component is on the outer side of the wood composite component to give the edge of the door a pleasing and attractive finish that preferably matches the wood grain of the surface skin veneers. (Specification, Paragraph 0010).

### **Rejection Under 35 U.S.C. §102**

The Examiner has rejected claims 1, 3, 6, and 8 under 35 U.S.C. §102(b) as being anticipated by Iwata et al., U.S. Patent No. 5,554,429 ("Iwata").

While Applicants strenuously disagree with the Examiner's conclusions in this rejection, Applicants submit that this rejection is now moot because it does not relate to claim 4, and by the present amendment the subject matter of claim 4 has been incorporated into claim 1.

### **Rejections Under 35 U.S.C. §103**

The Examiner has rejected claims 2, 4, 5, and 7 under 35 U.S.C. §103 as being unpatentable over Iwata. The Examiner argues that Iwata discloses "the basic inventive concept" of the present claims; however, the Examiner concedes that Iwata fails to disclose several elements of the present claims, including the dimensions of the thickness of the hardwood, the width and the length of the wood piece, the screw holding strength, and the split resistance strength, but nonetheless, contends citing to *In re Aller*, 15 U.S.P.Q. 233 (C.C.P.A. 1955), that

these thickness, length, width, screw holding strength, and split resistance strength ranges recited in the present claims would have been obvious because, "it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See in re Aller, 15 U.S.P.Q. at 233."

Applicants respectfully disagree with the Examiner's analysis because the Examiner has not made the necessary factual findings to support the use of *Aller*. *Aller* concerned a process patent application. In *Aller* the Examiner identified a known relationship in the prior art between a set of processing parameters and the process efficiency, and the Examiner further showed that this known relationship demonstrated that the claims on appeal merely reflected the results of expected optimization of the disclosed set of parameters. (105 U.S.P.Q. at 234-35). In the present case, the Examiner has made no such showing. In fact, rather than make any such showings, it appears that in the Office Action of November 18, 2003, the Examiner merely recites the holding of the *Aller* case, without applying its holding to the facts of the present application, and asserts that all elements of the claims that are not specifically taught by Iwata could be obtained by a person of ordinary skill in the art through routine optimization.

Indeed, the Examiner has not shown that Iwata has any teaching that would have motivated a person of ordinary skill to optimize the thickness, length, width, screw holding strength, and split resistance strength. Merely because Iwata discloses composite wood boards does not make it obvious to optimize the composite wood board in the manner suggested by the Examiner. By contrast, in *Aller*, the prior art reference disclosed a relationship between certain

processing parameters and the process efficiency. Accordingly, Applicants believe that the Examiner has not appropriately applied *Aller* with respect to the present application.

Therefore, based on the above remarks, the Examiner has failed to establish that the present claims are obvious in view of Iwata. Reconsideration and withdrawal of the rejections of these claims are respectfully requested.

The Examiner has rejected claim 9 under 35 U.S.C. §103 as being unpatentable over Iwata in view of U.S. Patent Application 2003/0008110 A1 to Hsu ("Hsu"). The Examiner applies Iwata as described above, however Iwata fails to disclose the use of a wax additive in the concentration range of about 1% to about 2.5%. The Examiner further applies Hsu which discloses an oriented strand board comprising from about 1% to about 2.5% wax additive. (Office Action of November 18, 2004, Page 6). Applicants respectfully disagree with the Examiner's analysis.

In order to establish a prima facie case of obviousness, the Examiner must make all of the following showings: (1) there must be some suggestion or motivation to modify or combine the reference(s) as suggested by the Examiner (it is not sufficient to say that the cited reference(s) can be modified or combined without a teaching in the prior art to suggest the desirability of the combination or modification); (2) there must also be a reasonable expectation of success for the modification or combination; and (3) the reference(s), taken either alone or in combination, must teach or suggest all elements of the present claims. (M.P.E.P. §2143).

In the present case, not only does the combination of Iwata and Hsu fail to disclose all of the elements of the present invention, but the Examiner has not identified any suggestion that would have motivated a person of ordinary skill in the art to combine Hsu and Iwata as suggested by the Examiner, nor has the Examiner showed that a person of ordinary skill would have had a reasonable expectation of successfully combining Hsu and Iwata. Merely because Hsu and Iwata both disclose lignocellulosic materials does not mean that it would be obvious to combine them, nor that a person of ordinary skill in the art would have a reasonable expectation of successfully combining them.

Therefore, based on the above remarks, the Examiner has failed to establish that the present claims are obvious in view of Iwata and Hsu. Reconsideration and withdrawal of the rejections of these claims are respectfully requested.

The Examiner has rejected claim 9 under 35 U.S.C. §103 as being unpatentable over West in view of U.S. Patent Application 2003/0008110 A1 to Hsu ("Hsu"). West discloses a composite door prepared with a skin composed of a molding compound, the molding compound containing a resin system of a curable polyester resin, a co-curable unsaturated resin monomer and at least two low profile additives. (Col. 2, lines 40-52). This molding composition also includes at least about 30% (by weight of the overall molding compound) and less than about 35% of fibrous reinforcement. (Id.). West discloses that this skin is used in combination with a standard composite door configuration including a core positioned in a frame, the frame

composed of multiple stiles and rails. (Col. 3, lines 17-23 and lined 50- 65). These door parts are typically made from wood materials. (Id.). A skin is attached to each side of the frame. (Col. 4, lines 7-16). The Examiner applies West to teach "the basic inventive concept" of the elements of the door. The Examiner concedes that West fails to teach several elements of the present claims including: (1) the "specific of the core"; (2) a stile having the hardwood and parallel layers of wood composite; (3) the wood composite layers contacting the core; (4) the method of cutting the wood composite and the hardwood into the desired dimensions; and (5) attaching all of these sections together, with both having the same width.

The Examiner applies Iwata to teach these missing elements, but concedes that Iwata fails to disclose several of the missing elements. Nonetheless, the Examiner maintains that these elements would be obvious to one of ordinary skill in the art in view of:

the teachings of Iwata et al. to have used a core Iwata et al. in order to have the desired strength of the door. The method cutting the wood composite and hardwood of the same width and attaching them together would also be an obvious way to make the device, and when assembled the method of having the wood composite touch the core would also be obvious, since that configuration would include facing the more aesthetically pleasing hardwood to the eye of the user.

The Examiner's reasoning is difficult to follow, but it again appears that the Examiner has failed to make a sufficient case that the present claims would be obvious in view of the combination of West and Iwata. Specifically, rather than identify statements in the prior art references that would have motivated a person of ordinary skill in the art to modify and combine the references in the manner the Examiner is suggesting, the Examiner makes retrospective

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statements that are indicative of hindsight reconstruction. Even assuming that there were sufficient teachings that would have motivated a person of ordinary skill in the art to modify and combine the references, the Examiner has not demonstrated that the combination of Iwata and West discloses all of the elements of the present claims.

Therefore, based on the above remarks, the Examiner has failed to establish that the present claims are obvious in view of West and Iwata. Reconsideration and withdrawal of the rejections of these claims are respectfully requested.

**CONCLUSION**

Reconsideration and withdrawal of the rejection of the claims in view of the remarks provided herein and allowance of the claims being prosecuted are respectfully requested.

Respectfully submitted,

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